Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming	)	CS Docket No. 95-61

COMMENTS

BellSouth Telecommunications, Inc., ("BellSouth") submits these comments in response to the Commission's Notice of Inquiry (FCC 95-186), released May 24, 1995, in the above-referenced docket. Additionally, BellSouth submits for the record in this proceeding reports prepared by National Economic Research Associates (Attachment A) and Strategic Policy Research, Inc., (Attachment B) which address the importance of economies of scope to wire-based competition and the policy options most congenial to such competition in the video programming market.

A. The 1994 Report

The Commission found in the 1994 Report that there only were a few scattered areas of the country where local cable systems faced direct wire-based competition as a result of overbuilding and that alternative video programming distribution media had not yet reached subscriber levels sufficient for the Commission to conclude that vigorous rivalry exists in the market for multichannel video

programming distribution.[1] The Commission characterized the VDT Order[2] as a substantial stride for alternative distribution media and characterized pending video dialtone ("VDT") applications as a "promising source of competition to cable operators for the multichannel distribution of video programming."[3]

The Commission's conclusions concerning VDT's future were optimistic. At the time of the 1994 Report, VDT provided no competition to the cable industry. Events since the release of the 1994 Report have substantially diminished VDT's prospects for becoming a significant competitive alternative to cable television.

B. VDT's Competitive Disadvantages

The VDT Reconsideration Order's injunction against anchor programmers[4] substantially detracts from telephone companies' ability to compete head-on against incumbent

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[1] Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, "First Report", CS Docket No. 94-48, 9 FCC Rcd 7442, 7449, ¶ 15 (1994).

[2] Telephone Company-Cable Television Cross-Ownership Rules, Sections 63.54-63.58, Second Report and Order, Recommendation to Congress, and Second Further Notice of Proposed Rulemaking, 7 FCC Rcd 5781 (1992), appeal pending sub nom. Mankato Citizens Telephone Co. v. FCC, No. 92-1404 (D.C. Cir. 1992)("VDT Order").

[3] 1994 Report, 9 FCC Rcd at 7496, ¶ 104.

[4] Telephone Company-Cable Television Cross-Ownership Rules, Sections 63.54-63.58, Memorandum Opinion and Order on Reconsideration and Third Further Notice of Proposed Rulemaking, 10 FCC Rcd 244, 260 ¶ 35 (1994).

cable operators. Similarly, the Order's reaffirmation of the Section 214 requirements, which awards incumbent competitors an advance copy of a telephone company's game plan and allows them to impede deployment of VDT facilities, poses a significant barrier to investing in a new business.

Moreover, the ability of the incumbent cable operator to request, as it has done in BellSouth's VDT trial area, half the analog channels available (the channel allocation limit imposed by the Common Carrier Bureau) seriously undermines the competitive viability of the VDT model, both by diluting the strength of possible alternative video programming packages and by providing opportunities for incumbents to engage in a variety of anti-competitive behaviors.

VDT's only attractive regulatory feature is freedom from local franchise regulation.[5] This is sound, pro-competitive policy that eliminates unnecessary entry barriers.[6] Unfortunately, this feature does not outweigh VDT's competitive and regulatory drawbacks, and the Commission is rumored to be considering its elimination for

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[5] VDT Order, 7 FCC Rcd at 324-28, recon 7 FCC Rcd 5069, aff'd sub nom. NCTA v. FCC, 33 F.3d 66 (D.C. Cir. 1994).

[6] Telephone companies still face whatever requirements may apply at the state level for intrastate VDT.

telephone companies that provide programming on their telephone platforms.[7]

Under these adverse circumstances, BellSouth is unlikely to pursue VDT. The best prospect for wire-based competition to cable television is not VDT; it is LEC provision of cable service, but even that option faces substantial regulatory hurdles at the federal, state and local levels.

C. Regulatory Impediments to Successful Cable Overbuilds

At the federal level, the Commission's enforcement policy requires only a single classification of prospective cable operators, that is, common carriers, to obtain Section 214 authorization prior to the provision of cable service.[8] That requirement presents the same unnecessary federal obstacle to a LEC's ability to deploy a competitive cable system as it does to a LEC's ability to deploy a competitive VDT network.[9]

At the state level, regulatory burdens are manifested in the form of so-called "level playing field" laws:

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[7] Ted Hearn, Newest VDT Plan Is Cable's Friend & Foe, Multichannel News, June 26, 1995, at 1.

[8] Commission Announces Enforcement Policy Regarding Telephone Company Ownership of Cable Television Systems, Public Notice DA 95-722 (corrected Apr. 3, 1995).

[9] The constitutionality of this policy is being challenged by BellSouth and others in USTA v. FCC, No. 95-533-A (E.D. Va., filed Apr. 27, 1995).

> Incumbent suppliers of cable television services have revealed a preference for legal entry barriers. In the wake of federal deregulation of cable prices and services (under the 1984 Cable Act and pursuant to a host of court decisions granting cable firms protection as "electronic publishers"), the state cable television trade associations have petitioned their respective state legislatures to pass anti-overbuild laws. These statutes, now enacted in at least eleven states, require that competitive franchise requests (a) be put through a formal administrative process, including a series of public hearings and determinations of the public interest, and (b) be granted on terms no less, but possibly more, burdensome that the incumbent's franchise. Packaged as "level playing field" laws, the intent behind cable industry drafting of and lobbying for such legislation is more honestly reported in the trade press: "California Anti-Competition Bill Pending" was the headline used to describe such a bill in *Cable TV Franchising* (31 August, 1988, p.2).[10]

The most formidable entry barriers to cable overbuilding are the franchise requirements imposed on non-dominant competitors at the local level. The local franchise has been used, historically, to impede competitive entry and sustain an incumbent cable operator's *de facto* exclusive franchise. While some local governments view

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[10] Thomas W. Hazlett, Predation in Local Cable TV Markets (May 31, 1995) unpublished manuscript used with permission of the author, pp. 23-24 (footnotes omitted). Hazlett goes on to chronicle passage of the first such law in Florida in 1987 in direct response to the emergence of Telesat Cablevision, an aggressive overbuilder which had entered over a dozen Florida markets lowering cable prices and profits. Id.

competition in video programming as a positive incentive to improve service, price and infrastructure development, others are likely to concern themselves only with the potential loss of their shares of the incumbent cable operator's monopoly rents.

Even in those municipalities where competition is ostensibly welcome, local franchising conditions and the activities of the incumbent cable operator make entry difficult. In a formal sense, Hazlett notes, entrants are welcomed into local cable markets to compete with established firms:

> Indeed, most cities award explicitly *non-exclusive* franchises. As a practical matter, however, gaining legal permission to enter a cable market is exceedingly difficult.[11]

Not only are potential entrants compelled to provide advance notice of their business plans to the incumbent through public hearings, filings of business plans, and the like, but new entrants and municipalities alike are subject to profuse, expensive litigation and frivolous litigation financed by the cable's industry's war chest. As a result, market entry is forestalled long enough for the incumbent to engage in predatory behavior in the submarkets identified through these processes as well as other competition deterring practices, including strategic delay or cost-

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[11] Id. at 22.

creation during make ready as well as creation of controversy and customer confusion.[12]

D. BellSouth's Recommendations

The Commission should stop treating LECs as if they are dominant in the video programming market. Despite the findings of the Commission's last two reports concerning cable's virtually unchallenged market power, LEC entry continues to be thwarted by accreting layers of rules, regulations and policies that impede LEC entry into a market that they have no power to dominate.

The Commission should continue to make recommendations to Congress that will encourage facilities-based competition. The recommendation to repeal the cross-ownership ban was an important first step. This Spring, the Commission recommended to Congress that language be added to the Cable Act to clarify an ambiguity relating to the statutory prohibition of exclusive franchises. Further, in response to its findings in the 1994 Report, the Commission recommended language that would, if adopted by Congress, prevent a local franchising authority from taking unreasonable delay in reaching final decisions. The Commission submitted this recommendation in order to "make it clear to local franchising authorities that they cannot

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[12] Id., pp. 20-35.

evade the pro-competitive intent of the 1992 Cable Act through tactics of delay."[13]

BellSouth supports these recommendations and encourages the Commission to continue to pursue removal of other obstacles to competitive cable entry. There simply is nothing about the economics of the cable television industry that require it to be regulated any differently than any other business.[14] In an industry fundamentally engaged in the provision of speech, any kind of regulation is constitutionally suspect. Indeed, rather than over-regulation, excessive regulation at all levels should be eliminated in order to encourage free entry by market contestants. Regulation affecting cable television, to the extent it is necessary at all, should be limited to the routine license and authorization procedures to which diverse businesses may be subject at state and local levels. To this end, the Commission should recommend to Congress that there is no basis in law or in policy for regulators at any level to impose any unique or discriminatory terms and conditions upon cable operators solely because of their status as cable operators, and that Congress should therefore prohibit any such discriminatory laws.

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[13] Exclusive Cable Franchising and Competitive Franchise Applications, Cable Services Bureau 1995 FCC Lexis 3485, (May 1995).

[14] Thomas W. Hazlett, Private Monopoly and the Public Interest: An Economic Analysis of the Cable Television Franchise, 134 U. Penn. L. Rev. 1336 (1986).

CONCLUSION

Significant national and extensive local regulatory barriers effectively eliminate would-be cable television market contestants. VDT has its own set of regulatory and technical hurdles which makes it an unlikely foundation for competition. Much of the existing regulatory "restrictions" on cable television, including the so-called "level playing field" statutes, constitute a protectionist wolf in the sheep's clothing of "economic regulation." It is time for these regulations to be lifted, to let incumbent and entrant alike contest video programming markets free from artificial restraints that have no proven foundation in market behavior. It is time to allow technology and the market to provide customers with the choices they seek and deserve.

Respectfully Submitted,

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Date: June 30, 1995

Attachment A

TELEPHONE COMPANY PROVISION OF BROADBAND SERVICES:

ECONOMIES OF SCOPE, COMPETITION, AND PUBLIC POLICY

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May 9, 1995

Consulting Economists

TELEPHONE COMPANY PROVISION OF BROADBAND SERVICES: ECONOMIES OF SCOPE, COMPETITION, AND PUBLIC POLICY

Table of Contents

TELEPHONE COMPANY PROVISION OF BROADBAND SERVICES: ECONOMIES OF SCOPE, COMPETITION, AND PUBLIC POLICY

Executive Summary

The authority given to local exchange carriers (LECs) to operate video dialtone (VDT) platforms, the lifting of the ban on cross-ownership, technological developments and alliance possibilities, and pending congressional legislation on the future of competition in telephony and cable, all point to the imminent emergence of a multiple service provider (MSP) industry, i.e., one in which firms provide both telephone and video services. This industry will consist of LECs, cable companies, and other entities who will use integrated broadband networks or upgrades of narrowband networks to deliver a wide variety of telephone and video services. Two questions with enormous public policy implications remain about this industry: (1) what will be the structure of this industry? and (2) can meaningful competition occur in this industry?

The making of sensible public policy for this industry is not easy. The FCC has issued numerous notices of proposed rulemaking in this regard and, predictably, battle lines have been drawn and firmed up between different contenders for this industry. In this paper, we argue that any policy-making exercise must first recognize the fundamentally different economics that will likely characterize the MSP industry. First, significant economies of scope and possibly scale are likely under joint provision of telephone and video services from integrated broadband networks. Second, vertical integration of video transport and programming is likely to produce important efficiency gains and allow greater responsiveness to consumer demand. However, no matter the cost and technological factors at play, the demand side will be initially a big question mark for this industry.

Despite the paucity of information about demand, economies of scope and risk-diversification may be expected to lead to the formation of multiproduct MSPs. The prediction of economic theory is that the number of such MSPs in a given market may not be "large." However, with suitable public policies in place, the business interests of MSPs can be promoted at the same time that consumers receive the benefits from scope economies, product diversity, and service provider choice.

This paper proposes three principles for making public policy. These involve recognition

of the following needs: (1) to preserve and protect the scope economies, (2) to develop safeguards that promote contestability in the MSP industry, and (3) to provide LEC-MSPs (i.e., MSPs who originate as today's LECs), indeed all MSPs, the opportunity to elect the mode of supply that is dictated by their underlying economics. That mode of supply may be either as (1) a pure common carrier for both telephony and video or (2) a mixed mode carrier (common carrier for telephony but non-common carrier for video).

We argue in this paper that public policy safeguards for the MSP industry should (1) not be draconian, (2) be nonstructural, and (3) be appropriate for the mode of supply elected by all MSPs. Generally, incremental cost-based price floor tests and price regulation should be sufficient safeguards against cross-subsidization. Also, any cross-subsidy test should be focused primarily on telephone and video *transport*.

The emerging MSP industry will likely experience far more competition from the very start than has been true of traditional LEC and cable companies that have operated as regional or local monopolies. The absence of bottleneck facilities, economies of scope, and efficiency gains from vertical integration will together contribute to greater efficiency overall and efficient competition within the MSP industry. As a result, consumers - and society - will be the big winners. Public policy should be creative and restrained enough to make this come about, fairly and efficiently.

TELEPHONE COMPANY PROVISION OF BROADBAND SERVICES: ECONOMIES OF SCOPE, COMPETITION, AND PUBLIC POLICY

I. Introduction

A. Industry Issues and Background

The much-talked-about "convergence of technologies" among the communications, information and entertainment, and computing industries is beginning to change the rules in many traditional industries. All branches of the U.S. federal government are presently involved in redrawing the boundaries of industries like local and long distance telecommunications, cable television, information services, and manufacturing. With this comes the complex process of formulating the rules of engagement among formidable facilities-based competitors (local exchange carriers or LECs and interexchange carriers or IXCs in telephony; LECs and cable multiple system operators or MSOs in telephony and video services) as the traditional boundaries between them disappear. While technological change is a large part of this development, increasing awareness of the economic peculiarities of these industries has produced both intense confrontation and strategic alliances among the "competitors."[1]

Even as new fiber-optics transmission and signal compression technologies are making entry by telephone, wireless, and cable companies into each other's businesses *possible*, the *economic viability* of such entry and competition remains an important question. As competitors run market trials in new lines of business, the big question is whether competition and entry by multiple service providers in traditionally monopolistic markets can survive economically. Economies of scale once sustained highly capital-intensive monopoly service providers in the telephone and cable industries. But, some observers now doubt whether scale economies can

[1]The rulemaking process utilized by regulatory or legislative bodies is usually marked by significant litigation and lobbying by opposing parties. While this is nothing new, alliances among so-called "foes" - even short-lived compacts like that between Bell Atlantic (one of the largest LECs) and Telecommunications Inc. or TCI (the largest cable MSO) - are a novel feature of this changing world.

any longer provide the competitive edge.[2]

Competitive entry, due to technological developments and/or regulatory policy toward incumbent firms, will very likely cause incumbent firms to look for other sources of economic efficiency or competitive advantage. Foremost among these is the ability to provide multiple services from a common or integrated service platform. For example, it is now possible for telephone and cable companies alike to provide both telephone and video services, i.e., be "multiple service providers" or MSPs. A telephone company may do this in a number of different ways. It may build and operate a broadband (e.g., hybrid fiber-coaxial or HFC) network that can deliver both types of service. Or, it may upgrade its existing copper-based narrowband network (using asynchronous digital subscriber line or ADSL technology) in order to deliver broadband signals. Or, it may, subject to existing regulations, even acquire the video capability by either purchasing or allying with cable facilities. Likewise, a cable company seeking entry into the telephone market could either seek out an alliance or adapt its own network for telephone service.

Two important questions arise at this juncture. First, what production and market structure may be expected to evolve in the telephone and cable industries under the present technological and regulatory climate? Second, how can competition among such MSPs truly succeed? These questions are multifaceted and involve much that is presently not known, e.g., the future course of legislation, the strength of consumer demand for broadband services, etc. In this paper, we examine the two questions with a special focus on the effect of the *economies of scope* that arise from integrated provision of telephone and video services. If such competition can truly occur, the benefits can be varied and far-reaching: greater variety and increased utilization of communication services, higher consumer welfare, and a more rapid transition to a communication infrastructure that at least one observer claims could be a $2 trillion stimulus to

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[2]Increasing market fragmentation due to competition also erodes whatever scale economies accrue from "bigness." When the incumbent with the scale economies is a *common* carrier but competition comes from private or *contract* carriers, Noam (1994) argues that the institution of common carriage itself is placed at substantial risk. E.M. Noam, "Beyond Liberalization II: The Impending Doom of Common Carriage," *Telecommunications Policy*, 18, 1994, at 435-452.

the U.S. economy.[3]

While "two-wire competition" or competition between two facilities-based providers of telephone and video services is now a common goal,[4] questions abound about the viability of such competition and the appropriate role of public policy. The Federal Communications Commission (FCC or Commission) specifically wants to determine the applicability of Titles II and VI of the Communications Act to the offering of video programming by local exchange carriers (LECs). Title II treats telephone companies as common carriers, whereas Title VI defines the terms under which a non-common carrier cable system may be operated.[5] Now that various courts have seemingly cleared the way for LECs to provide video services *within* their service areas, the FCC has sought input on whether the "video dialtone" or VDT platform that it proposed for LECs in 1992[6] should now also be available to LECs to provide their own video programming and, in addition, whether LECs should be required to provide their video programming *only* over VDT platforms.

The FCC is particularly interested in devising appropriate regulatory safeguards under which LECs may offer or transport video programming over their networks. These safeguards and the overall regulatory structure envisaged in the Notice clearly tread on certain very

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[3]George F. Gilder, Senior Fellow at the Discovery Institute, testifying before a Senate panel, and cited by *The Cable-Telco Report*, March 13, 1995.

[4]The Federal Communications Commission has stated that it intends to promote competition in the multi-channel video programming market by authorizing LEC-supplied video dialtone systems that compete with cable operators. Officials from the Justice Department and the National Telecommunications and Information Administration have testified before U.S. Senate panels about the desirability of such competition. The U.S. Congress has introduced and debated several bills that propose such competition. See Telephone Company-Cable Television Cross-Ownership Rules, Sections 63.54-63.58, *Fourth Further Notice of Proposed Rulemaking*, CC Docket No. 87-266, released January 20, 1995, ("Notice"), and *Second Report and Order, Recommendation to Congress, and Second Further Notice of Proposed Rulemaking*, CC Docket No. 87-266, 7 FCC Rcd. 5781, 5783 ¶ 2, 1992, ("Video Dialtone Order"). See also *The Cable-Telco Report*, March 13, 1995, at 4-5, and House bills, H.R.3636 and H.R.3626, and a Senate bill, S.1822, debated by the U.S. Congress in 1994. Modified versions of these bills have been re-introduced in Congress in 1995.

[5]47 U.S.C. § 522.

[6]Video Dialtone Order, 1992.

important *economic, financial,* and *market viability* issues.[7] For example, on using structural separation of LECs' video programming activities from their core telephony businesses as a possible safeguard, the Commission recalled its earlier conclusion from a different case[8] that

> "... the provision of ... services on an integrated basis would allow B[ell] O[perating] C[ompanies] to capture certain efficiencies, and capitalize on *economies of scope and cost savings* created by removing the need for duplicative personnel for sales, marketing, repair and installation, and research and development." [emphasis added][9]

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[7]The issue of viable competition between LECs and cable companies is drawing increasing attention from economists and financial circles in general. Johnson (1994) presents a comprehensive analysis of LEC entry into video and cable entry into telephony. See Leland L. Johnson, *Toward Competition in Cable Television*, Cambridge, MA: MIT Press, and Washington, DC: American Enterprise Institute for Public Policy Research, 1994.

The financial results from the deployment of broadband multimedia networks are receiving increasing scrutiny in publications like *Telephony*. See, in particular, the February 27, 1995, issue. This issue reports that in October 1994, three vendors - Siemens Stromberg-Carlson, Scientific-Atlanta, and Sun Microsystems - formed an alliance to deliver a hybrid fiber/coax or HFC multimedia platform called IMMXpress to telephone and cable companies alike. This platform provides telephone and cable services on an integrated basis.

The feasibility of entry by cable companies into wireline and wireless telephony has been examined by, among others, Reed and Sirbu (1989), Reed (1993), and Bilotti (1994). See D.P. Reed and M. Sirbu, "Integrated Broadband Networks: The Role of the Cable Companies," presented at the 17th Annual Telecommunications Policy Research Conference, 1989. D.P. Reed, "The Prospects for Competition in the Subscriber Loop: The Fiber to the Neighborhood Approach," presented at the 21st Annual Telecommunications Policy Research Conference, 1993. R. Bilotti, "The Cable Television Industry - Deploying Wireline & Wireless Telephony," Morgan Stanley & Co. Memorandum, released December 12, 1994.

Similarly, entry by LECs into the cable market has been analyzed by Johnson and Reed (1992), Goodman *et al.* (1993), and Stolleman (1993). While the overall conclusions of these studies differ in some respects, there is growing recognition of not merely the technological feasibility of cable-telco competition but of its economic viability as well. See L.L. Johnson and D.P. Reed, "Residential Broadband Services by Telephone Companies," The RAND Corporation, 1990. L.L. Johnson and D.P. Reed, "Telephone Company Entry into Cable Television: An Evaluation," *Telecommunications Policy*, 16, March 1992, at 122-134. M. Goodman, K. Lu, W. Sharkey, P. Srinagesh, and N. Stolleman, "Telephone Company Entry into Cable Television: A Re-Evaluation," *Telecommunications Policy*, 17, March 1993, at 158-162. N.C. Stolleman, "Economies of Scope in the Provision of Narrowband and Switched Broadband Services," *Telecommunications Policy*, 17, January/February 1993, at 74-79.

[8]The FCC considered, and rejected, structural separation of enhanced services offered by Bell Operating Companies (BOCs) from their regulated services. *Computer III* Remand Proceedings: Bell Operating Company Safeguards; and Tier 1 Local Exchange Company Safeguards, 6 FCC Rcd 174, 1990.

[9]Notice, ¶ 38 at 24.

We argue in this paper that the FCC's acknowledgment of the crucial role of the economies of scope is a step in the right direction for designing public policy toward the joint provision of telephone and video services over integrated networks.

B. Objective and Organization of This Paper

In this paper, we examine the questions posed earlier regarding industry structure and competition when MSPs provide telephone and video services on an integrated basis. Answers in summary form to these questions are presented in Chapter II. We present a more comprehensive examination of the economies of scope and scale in the Appendix. There we analyze why such economies tend to generate multiproduct firms, project the likely MSP industry structure, and assess the economic feasibility of competition among two or more facilities-based providers of telephone and video services. We also suggest that the relatively new concept of *contestability* may be a better standard of MSP market performance than the older and more tenuous concept of "perfect competition." Finally, in the Appendix, we review the empirical record on economies of scope within the telecommunications industry, with a particular focus on the joint provision of telephone and video services. The empirical evidence, limited though it may be, confirms the existence of scope economies.

Finally, in Chapter III, we propose *three* principles for public policy toward MSPs and, in particular, LECs that turn into MSPs. We (1) consider the importance of economies of scope to the making of sensible public policy, (2) propose that a crucial public policy function will be to design safeguards that keep the MSP industry contestable, and (3) emphasize that firms be given the freedom to make critical business decisions regarding entry into the MSP industry and also the opportunity to choose their mode of supply.

II. Economies of Scope and the Emerging MSP Industry

A. Introduction

In this chapter, we summarize various results from economic theory that provide useful insights about the emerging MSP industry.[10] We focus on the following question: Under what conditions can successful two-wire competition occur? As stated before, there is presently a widely-shared desire to give customers of telephone and video services the opportunity to choose between *at least two* providers of those services. Most often, this may mean that a customer will be able to choose between the incumbent LEC or the incumbent cable company for *both* of those services; however, other configurations are certainly possible. Moreover, both incumbents will deploy their own facilities (whether integrated broadband networks, upgraded narrowband networks, or facilities acquired through purchase or alliance) for this purpose. This chapter explores the *economic* circumstances under which two or more competing facilities will be deployed.

B. Prerequisites for Efficient Competition

Efficient competition among multiple facilities-based competitors in the MSP industry will depend greatly upon two factors: (1) the level of demand for telephone and video services in the relevant "market", and (2) the economies of scope that arise from joint provision of those services over common or integrated facilities.

The relevant market for the MSP industry will have both a product scope and a geographic scope. We assume that the product scope of the MSP industry will include at least the telephone and video services that are currently being offered by LECs and cable companies. Related services offered in the future will also belong in this set. In principle, the geographic scope for telephone services will remain no wider than the "regional" markets that LECs can currently serve, unless and until those LECs can operate as "national" carriers. LECs may offer video services outside their telephone service areas in alliance with cable companies. While, in

[10]The reader in more detail is referred to the Appendix. This chapter is a condensed version of most of the material presented there.

principle, this puts the LECs in a national market for video services, we will focus here solely on regional or "local" markets for video.[11]

We argue in this paper that economies of scope are the central *economic* issue for the proposed MSP industry. These economies lie at the heart of technologically feasible and economically viable two-wire competition. The remainder of this chapter is devoted to establishing two themes: (1) economies of scope will determine how *technically efficient* the MSP industry will be, and (2) economies of scope and the level of available consumer demand will together determine how *financially viable* that industry will be.

We assume that the typical LEC-MSP[12] will be a multiproduct firm offering various telephone and video services over an integrated network. It will use numerous shared resources (e.g., network components, buildings, marketing channels, other overheads), many of which will be fixed costs to it. Besides these shared fixed costs, the LEC-MSP may also incur fixed costs that are specific to its individual services.

The LEC-MSP will be said to enjoy economies of scope if joint provision of its many services over an integrated network turns out to be cheaper than the separate provision of those services. These economies may arise from two sources: (1) *cost complementarity*, the cost savings that result from it being technologically possible to use common facilities to deliver two or more distinct sets of services (e.g., telephone and video services over a common "wire"), and (2) *shared resources*, the cost savings that result from being able to share fixed inputs in many different uses (e.g., joint marketing or administrative resources). Scope economies that arise for either technological or operational reasons have the effect of lowering the direct incremental costs specific to each service provided. In the MSP industry, this may mean that LEC-MSPs will be able to add video services to its product line at less than the cost of providing those services on a separate, stand-alone basis, and that the same will be true for cable companies that add on

[11]This simplified focus enables us to concentrate on the possibility that, despite a potentially national reach, each LEC that offers video service will first wish to test its prospects for successful entry at the local market level. Such an LEC may find that while *aggregated* nation-wide demand justifies its entry into the video business, the demand that actually exists at the local level is too fragmented or simply insufficient to make entry at that level feasible. Until *all* demand can be served from a single centralized network facility, it is demand at the local level that will define the LEC's prospects for successful entry.

[12]The term LEC-MSP refers to LECs that provide both telephone and video services.

telephone services.[13]

By lowering the direct incremental costs of services provided, economies of scope contribute to greater technical efficiency of the firm (or LEC-MSP) and possibly of the industry as a whole. Being able to exploit these scope economies will ensure that the truly cost-minimizing configuration of MSPs (LECs, cable companies, and others) will take hold in that industry.

Technical efficiency has several implications. First, since incremental cost is usually considered the price *floor* for the pricing of individual services, a lowering of such cost due to scope economies will mean potentially lower price floors for all services provided by LEC-MSPs over their networks. While the actual service *prices* will also depend importantly on the characteristics of consumer demand, lower price floors are quite likely to translate into lower prices. Second, technical efficiency will preclude the possibility of uneconomic competition, i.e., competition in which for whatever reason firms that do not minimize cost are still able to enter and function in the industry. Only LEC-MSPs that generate and exploit the scope economies will be able to compete and survive in the long run; the benefits from such efficiency will accrue to consumers (because of lower prices) and society as a whole (because of optimal use of resources in the MSP industry). Third, efficiency gains due to scope economies may enable competitive multiproduct LEC-MSPs to venture into levels of production that single-service or stand-alone providers probably will not. In other words, while two firms, each providing a different service, may be inhibited from providing "large" quantities of their respective services, a firm that by combining the provision of the two services experiences significant economies of scope may be much more forthcoming with those large quantities.[14] Thus, in the MSP industry, greater levels of service - provided on a *voluntary* or *market-driven* basis - may be expected when the MSPs are allowed to deploy integrated facilities and to experience economies of scope. Any public policy or regulation that has the effect of inducing MSPs (LECs and non-LECs alike) to forsake these scope economies will have the larger effect of failing to promote efficient competition, lower prices, service variety, and customer choice in

[13]See the Appendix for a detailed discussion of these concepts.

[14]See the numerical example in the Appendix and the accompanying discussion.

the MSP industry.

The financial viability of firms in the MSP industry will depend on both economies of scope and the level of available consumer demand. While economies of scope will affect and shape the cost structure of the MSP industry, it will not by itself determine the *size* of the industry, i.e., the number of efficient MSPs that can survive and function in various MSP markets in the long run. Financial viability is a matter of each MSP earning enough revenue to cover its costs and of market revenue as a whole covering total industry costs.[15] This introduces the demand side of the market - about which there is usually great uncertainty, especially in new or emerging industries. Hence, until that level of demand is known, neither the industry size nor the prospects for financial viability of individual firms can be predicted definitively. The best "guess" that can be offered is that the larger the potential demand in the market (suitably defined) relative to the average-sized cost-minimizing MSP, the larger will be the number of technically efficient and financially viable firms serving the market. Thus, some minimum amount of demand will be necessary for competition even among two facilities-based MSPs to take hold. However, once such demand is manifested in the market, the effectiveness of such competition and the consumer and social benefits therefrom will depend greatly on whether economies of scope exist and the MSPs are given every opportunity to translate those economies into lower costs.

C. Summary

What does all this mean for efficient two-wire competition? First of all, market demand in the relevant market is the big unknown. From the standpoint of a single MSP, the available demand for video obviously will be greater in the national market than in the regional market, and greater in the regional market than in the local market. By selling its video services in the largest possible market, the MSP can compensate for inadequate local demand. On the other hand, that MSP will likely face more competition in larger markets and incur greater costs on network facilities or from interconnecting with networks of other MSPs. Therefore, just how

[15]Here we take some liberties by leaving vague the precise nature of the market or industry involved. It suffices to define a market as being "local," "regional," or wider and to define the industry accordingly as consisting of all firms that provide telephone and video-related services in that market.

many MSPs can function viably in the local and regional markets depends critically on the level of demand in those markets.

Second, assuming that market demand is sufficient to support at least two facilities-based MSPs, efficient facilities-based competition - which maximizes benefits to consumers and society at large - will only occur if each is allowed to fully capitalize on the economies of scope that arise from integrated provision of telephone and video services. The two (or more) MSPs will then provide their services at the lowest possible cost to themselves and to the industry as a whole. Consumers will receive service at the lowest possible prices. And, uneconomic entry by less efficient firms will not occur. If market demand is large enough, entry by other MSPs may occur provided they too enjoy scope or other economies of their own that match those of the incumbents.

The underlying lesson is this: while financial viability in the MSP industry will depend greatly on unknown market demand, the feasibility of efficient two- or more-wire competition will depend largely on economies of scope and scale and the extent to which the MSPs have the incentive and the ability to capitalize on those economies. As will be stated in greater detail later, the implication for public policy is clear: if efficient and viable competition in the MSP industry is the desired goal, then the firms in that industry must be given every incentive and opportunity to pursue the economies of scope from integrated provision.

III. Policy Implications for the Emerging MSP Industry

A. Introduction

It is useful to first summarize the likely major features of the emerging MSP industry.[16]

(1) The overall MSP industry will be composed of LECs, cable companies, and other entities that provide both narrowband (telephone) and broadband (video) services. They may do so by deploying integrated broadband networks, or by overlaying more advanced transmission or switching technologies on their networks, or through acquisitions or alliances.

(2) Economies of scope will be a pervasive feature of the MSP industry. Scope economies will induce MSPs to be multiproduct in nature, although some single-product firms could coexist in that industry. (See details in the Appendix.)

(3) The efficient MSP industry will consist of firms that are able to exploit their scope and scale economies, although the number of economically feasible or financially viable firms will depend also on the strength of effective market demand for the industry's services. In any specific local market, that number is not likely to be "large," contrary to what would be expected under textbook notions of perfect competition. Hence, "two-wire" competition, i.e., competition between two facilities-based MSPs is a likely norm for local markets that have sufficient consumer demand to support such competition.

It is also useful to recall what the FCC's present rulemaking process is trying to achieve. In light of various court decisions that have voided the ban on telephone-cable company cross-ownership, it is now possible for LECs to carry their own video programming over their facilities. The Commission wishes to know how LECs should be regulated when they become MSPs: as common carriers under Title II of the Communications Act, as cable systems under Title VI of that Act, or as both.

In this chapter, we outline briefly some *economic* principles for public policy that will serve the emerging MSP industry, and its customers, well. Political or legal considerations are beyond the scope of this paper and have been dealt with at length elsewhere in the present rulemaking process.

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[16]Some of these features have been encountered in previous chapters. Others may be found in the Appendix.

B. First Public Policy Principle: Protect and Promote Scope Economies

Economies of scope, which arise from the joint use of broadband networks for providing both telephone (narrowband) and video (broadband) services, are the *raison d'être* for the MSP industry. It is doubtful that nonintegrated stand-alone providers can ever achieve cost savings comparable to those from joint provision. In specific terms, the scope economies will arise because telephone and video access and transport have cost complementarities or share common, integrated facilities. By encouraging MSPs to seek out and exploit these scope economies, public policy can contribute to the creation of an efficient and competitive industry which maximizes benefits to society in the form of product diversity, choice among service providers, and the lowest possible prices. Moreover, such an industry can deliver the significant positive externalities (benefits experienced but not paid for through market prices) associated with network industries.

Firms with scope economies should never be encumbered or handicapped simply for the sake of fostering greater, albeit uneconomic, entry into the MSP industry. The foremost implication of economies of scope in the MSP industry is that effective competition cannot be induced by simply increasing, by whatever regulatory means, the *number* of MSPs without paying particular attention to the *efficiency* properties of those competitors. Indeed, in markets where limited demand requires that such competition occur only among two (or few) facilities-based MSPs, any public policy that inhibits the exploitation of economies of scope can only be counterproductive. If the MSPs do not minimize their respective and overall industry costs, i.e., do not capitalize on any available scope economies of scope, little benefit will accrue to the industry and its customers alike from "competition" that simply means maximizing the number of "competitors." Hence, public policy should resist the urge to artificially expand the size of this industry by handicapping or constraining its incumbents. Rather, it should ensure that the doors to *efficient* competitors always stay open.

True two-wire competition will not be a matter of how many MSPs constitute the industry. Whatever the actual number of firms that a competitive MSP industry can sustain, at either the local or wider level, that number should result from (1) allowing *all* firms (LECs, cable companies, and others alike) the freedom to offer any or all services of the MSP industry, (2) allowing them all to seek whatever efficiency advantages are available from economies of scope